covalently bound to a bio-active molecule via its second end, said hydrophilic spacer also being repelled by said hydrophobic surface such that the bio-active molecule is extended away from said hydrophobic surface.

11. The device of claim 10, wherein said device is a tubular vascular graft.

12. The device of claim 10, wherein the device is a vascular graft made from a synthetic polymer material selected from the group consisting of PTFE, polyurethane and polyethylene terepthalate.

13. A method of imparting a bio-active coating to a surface of an article comprising:

a) plasma treating a surface of said article whereby hydrophilic groups generated from a gaseous material are introduced onto a surface of said article to provide a hydrophilic environment thereon, and

b) contacting said surface with a bio-active coating, said coating being the reaction product of

a first reaction comprising reacting in the presence of a first dehydrating agent a biocompatible polymer backbone containing one or more functional groups with a hydrophilic amine-terminated spacer having a first end and a second end, said first and second ends each having an amine group wherein one of said amine groups reacts one or more functional groups on said polymer backbone, and

a second reaction comprising reaction a bio-active agent reactive with a remaining unreacted amine-terminated end of said spacer in the presence of a second dehydrating agent to covalently bind said spacer.

14. The method of claim 13, wherein said article is a medical device.

15. The method of claim 13, wherein said contacting further comprises applying from one to about ten layers of the bio-active coating to the surface of the article.

16. The method of claim 13, wherein said one or more functional groups is selected from the group consisting of carboxyl functionality, unsaturated functionality and mixtures thereof

17. A method of coating an ePTFE vascular graft having an inner and outer surface comprising:

a) plasma treating said inner surface whereby hydrophilic groups generated from a gaseous material are introduced onto said inner surface;

b) contacting said inner plasma treated surface with a bio-active coating, said coating being the reaction product of

a first reaction comprising reacting in the presence of a first dehydrating agent a biocompatible polymer backbone containing one or more functional groups selected from the group consisting of carboxyl functionality, unsaturated functionality and mixtures thereof with a hydrophilic amine-treated spacer having a first end and a second end, said first and second ends each having an amine group wherein one of said amine groups reacts with said one or more functional groups on said polymer backbone, and

a second reaction comprising reacting a bio-active agent reactive with a remaining unreacted amine-terminated end of said spacer in the presence of a second dehydrating agent to covalently bind said bio-active agent to said spacer.

18. The method of claim 17, wherein said inner surface of said ePTFE vascular graft includes nodes and fibrils.

19. The method of claim 17, wherein said fibrils and nodes are resistant to said plasma treatment.

20. The method of claim 17, wherein said plasma is a hydrogen-rich plasma.

21. The method of claim 17, wherein said bio-active agent is selected from the group consisting of antithrombogenic agents, antibiotic agents, antibacterial agents, antiviral agents, their pharmaceutical salts, and mixtures thereof.

22. The method of claim 17, wherein said bio-active agent is selected from the group consisting of heparin, prostaglandin, urokinase, streptokinase, sulfated polysaccharide, albumin, their pharmaceutical salts and mixtures thereof.

23. The method of claim 17, wherein said plasma treatment further comprises employing the following parameters in a plasma ionization chamber:

a) a gas flow rate of about 1 to 500 ml/minute;

b) a chamber pressure of about 0.1 to about 100 torrs;

c) a power of about 1 to 700 watts; and

d) a sample exposure time of from one minute to about 24 hours.

24. A method of imparting a bio-active coating to a surface of an article which comprises:

a) plasma treating a surface of said article and a gaseous material in an ionization chamber whereby hydrophilic groups generated from said gaseous material are introduced onto a surface of said article to provide a hydrophilic environment thereon, and

b) contacting said surface with a coating composition including a polymeric structure defined by a bio-compatible polymeric backbone and at least one pendant moiety selected from the group consisting of

R^1-R^2-NH-C-R^3

wherein R^1 is O=C-NH, R^2 is a spacer group; and R^3 is a bio-active agent.

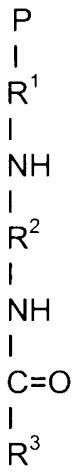
25. The method of claim 24, wherein the spacer is selected from the group consisting of oxygenated polyolefins, aliphatic polyesters, polyamino acids, polyamines, hydrophilic polysiloxanes, hydrophilic polysilazanes, hydrophilic acrylates, hydrophilic methacrylates, linear and lightly branched polysaccharides.

26. The method of claim 24, wherein the bio-active agent is selected from the group consisting of antithrombogenic agents, antibiotics agents, antiviral agents, their pharmaceutical salts and mixtures thereof.

27. A method of imparting a bio-active coating to a surface of an article which comprises:

a) plasma treating said surface and a gaseous material in an ionization chamber whereby hydrophilic groups generated from said gaseous material are introduced onto said surface to provide a hydrophilic environment thereon, and

b) contacting said surface with a polymer bound bio-active composition represented by the structure:



wherein P is a bio-compatible polymer, R' is O=C-NH; R^2 is a hydrophilic amine-terminated spacer and R^3 is a bio-active agent.

28. The method of claim 27, wherein the bio-compatible polymer is selected from the group consisting of bio-compatible polymers having carboxyl functionality, unsaturated functionality, and mixtures thereof

29. The method of claim 27, wherein the bio-active agent is selected from the group consisting of oxygenated polyolefins, aliphatic polyesters, polyamino acids, polyamines, hydrophilic polysiloxanes, hydrophilic polysilazanes, hydrophilic acrylates, hydrophilic methacrylates, linear and lightly branched polysaccharides.

30. The method of claim 27, wherein the bio-active agent is selected from the group consisting of anti-thrombogenic agents, antibiotic agents, antibacterial agents, their pharmaceutical salts, and mixtures thereof.--